

ABSTRACT OF THE DISCLOSURE

An exhaust gas purification system equipped, from an upstream side toward downstream side through which an exhaust gas flows, with a plasma reactor and a catalyst unit charged with a catalyst acting on NO_x in the exhaust gas in this order, and equipped with a reducing agent supplying device to supply a reducing agent at an upstream side of the plasma reactor, wherein the catalyst has an NO₂ adsorptive catalyst layer and an NO₂ selective reduction catalyst layer contacting the NO₂ adsorptive catalyst layer.